

California Energy Commission's Quarterly Report Regarding the Renewable Energy Program (October 1– December 31, 2001)

The California Energy Commission is pleased to submit its *Quarterly Report to the Legislature* on the Renewable Energy Program, covering the period October 1 to December 31, 2001. The Energy Commission is required to report to the Legislature quarterly on fiscal and functional aspects of the program.¹ This report describes the Energy Commission's implementation activities, including information regarding awards submitted to the State Controller² for payment, the cumulative commitment of claims by account, the relative demand for funds by account, a forecast of future awards, and related matters.

Background

Assembly Bill 1890³ (AB 1890) required California's three major investor-owned utilities to collect \$540 million from their ratepayers over a four-year period (1998-2002) to help support renewable electricity-generation technologies and develop a renewable market. As mandated by AB 1890, the Energy Commission submitted its *Policy Report on AB 1890 Renewables Funding (Policy Report)* to the Legislature in March 1997, with recommendations for allocating and distributing these funds. Senate Bill 90⁴ (SB 90) subsequently established a Renewable Resource Trust Fund, placed the \$540 million into the fund, and directed the Energy Commission how to distribute the fund through four distinct accounts, which is consistent with the *Policy Report*. These accounts and the total funds initially allocated to each are as follows:

- Existing Renewable Resources Account (**\$243 million**)
- New Renewable Resources Account (**\$162 million**)
- Emerging Renewable Resources Account (**\$54 million**)
- Customer-Side Renewable Resources Purchases Account:
 - Customer Credit Subaccount (**\$75.6 million**)
 - Consumer Education Subaccount (**\$5.4 million**)

In January 1998, consistent with SB 90, the Energy Commission adopted overall funding guidelines, eligibility requirements, yearly allocations, and account-specific guidelines to assist participants in applying for funding from the various accounts within the Program. These guidelines provide for fund reallocations among accounts, which are discussed in this report and enumerated where applicable in Table II.

¹ Public Utilities Code (PUC), Article 5, Section 445(g).

² As a procedural matter, the Energy Commission submits awards directly to the State Controller for payment, rather than through the Treasurer.

³ Chapter 854, Statutes 1996

⁴ Chapter 905, Statutes 1997

In September 2000, Assembly Bill 995⁵ and Senate Bill 1194⁶ codified the Reliable Electric Service Investments Act (RESIA) and extended the Renewable Energy Program until 2012. The RESIA directs that beginning January 2002 an amount starting at \$135 million per year is to be collected from the same ratepayers described above, and requires the Energy Commission to provide recommendations concerning an allocation of the funds that are collected over the first five years of that period. The Energy Commission submitted such recommendations to the Legislature in June 2001 in a report titled, *Investing in Renewable Electricity Generation in California*.⁷ (*Investment Plan*). The Legislature is expected to consider these recommendations and authorize the Energy Commission to implement the RESIA during its 2002 session.

We plan to seamlessly transition from implementing the initial Renewable Energy Program to the extended program under RESIA (for years 2002 to 2012). This plan will minimize or avert interruptions in funding disbursements and provide the renewable energy industry and its customers with a measure of certainty in an uncertain electricity market. According to the *Investment Plan*, any funds remaining in the Renewable Resource Trust Fund at the end of the initial program would be rolled into the extended Program under RESIA. Until the Energy Commission is authorized to implement the RESIA, initial program funds will continue to be disbursed from the Renewable Resource Trust Fund until they are expended, in accordance with each account's *Guidebook*.

Renewable Energy Program Implementation

The mechanisms for distributing funds vary by account, as do the implementation activities for each account. Table I highlights the Energy Commission's implementation activities for the fourth quarter of 2001 and describes the expected funding and implementation activities for the first quarter of 2002.

Renewable Resources Trust Fund Expenditures

Through December 31, 2001, the Renewable Resource Trust Fund had *received* a total of \$480.2 million for all of the accounts. As of the fourth quarter of 2001, the Energy Commission had awarded a total of \$243.2 million, reflecting payments (disbursements) from all of the accounts. Eligible applicants had *reserved* \$193.4 million, reflecting fund reservations (encumbrances) from the New Account, the Emerging Account, and the Consumer Education Subaccount. Table II shows a financial summary of the Renewable Resource Trust Fund as of the fourth quarter of 2001, reflecting cumulative funding and expenditures since the beginning of the Program, including those that occurred during the fourth quarter of 2001.

⁵ Chapter 1051, Statutes 2000

⁶ Chapter 1050, Statutes 2000

⁷ June 2001, California Energy Commission Publication Number P500-00-022.

**Table I - Renewable Energy Program
Fourth Quarter 2001 Program Implementation**

Account, Program-Implementation, and Funding Activities: October – December 2001	Expected Funding and Implementation Activities: January - March 2002
Existing Account	
<ul style="list-style-type: none"> A total of 378 facilities are registered as renewable suppliers; 273 facilities are eligible for funding. Payments totaling \$12.4 million were made this quarter. Funds from Tier 1 paid 0.28 – 1.0 cent/kWh on 721 million kWh for August, September and October 2001. Funds from Tier 2 paid 0.0 – 1.0 cents/kWh on 518 million kWh for August, September and October 2001. Funds from Tier 3 paid 0.0 – 0.89 cents/kWh on 1,253 million kWh for August, September and October 2001. Rollover funds total \$87.2 million for Tiers 1, 2, and 3, excluding the funds authorized for reallocation. 	<ul style="list-style-type: none"> The rollover is expected to increase slightly. An estimated \$2.2 million is expected to be paid in the first quarter of 2002.
New Account	
<ul style="list-style-type: none"> 35 projects are currently on-line and producing energy. Two second-auction winners began receiving payments. Payments totaling \$1.63 million were made this quarter. To date, payments totaling \$11.26 million have been made to 13 on-line facilities for 921 million kWh of new renewable energy generation. 	<ul style="list-style-type: none"> Construction of new projects will continue, as will payments to on-line facilities. Funding Award Agreements with winning bidders in the second and third auctions will continue to be finalized. Six additional projects, totaling 68.35 MW of capacity, are scheduled to come on-line by March 31, 2002.
Emerging Account	
<ul style="list-style-type: none"> Funds encumbered for Buydown Program reservation requests currently total \$39.8 million. To date, payments for installed systems total \$24.3 million. 915 new reservation requests were received this quarter. Funds totaling \$8 million were approved for rebates to municipal utility customers. Program funds for medium and large systems have been fully encumbered. A draft analysis of supply-side constraints was completed. Guidelines were modified to clarify some issues and to improve the application process. 	<ul style="list-style-type: none"> Reservation activity is expected to continue at a brisk pace, particularly into the second quarter of 2002. Staff will work with a contractor to identify and conduct additional verification activities on completed systems.
Customer Side Account	
Customer Credit Subaccount	
<ul style="list-style-type: none"> 29 active marketers are registered as renewable providers, offering a total of 48 products containing renewable energy. Five marketers continue to serve customers. There are a total of four registered wholesalers. To date, \$57.5 million has been paid to providers. About \$1.3 million was paid to providers this quarter. 	<ul style="list-style-type: none"> Expenditures will probably remain fairly steady as most providers have already exited the market, and no new customers are allowed to participate in the direct access market. The credit level will remain at 1.0 cent/kWh until the Customer Credit Subaccount funds are depleted.
Consumer Education Subaccount	
<ul style="list-style-type: none"> Most project activities from the first grant solicitation for \$375,000 have been completed during this quarter. To date, payments total \$153,263 to grant recipients of the second grant solicitation. ICF Consulting began developing strategies for conducting a public awareness campaign. Payments to ICF for this quarter total \$171,832. Campaign to promote the Emerging Buydown Program was terminated. Participated in UPEX '01 Conference in Sacramento. Contract was renewed for the Clean Power Estimator™. 	<ul style="list-style-type: none"> All grant projects from the first grant solicitation will be completed. Work will continue on the five grant projects from the second grant solicitation. ICF Consulting and subcontractors will finalize campaign concepts and continue public relations activities. Staff will exhibit at Santa Clara's Home and Garden Show. Staff will participate at other workshops, conferences and fairs throughout the state. The <i>Small Wind Electric Systems: A California Consumer's Guide</i> will become available.

Table II - Renewable Resource Trust Fund
Cumulative Funding and Expenditures as of the Quarter Ending December 31, 2001
(\$ Millions)

	Existing Account	New Account	Emerging Account	Customer-Side Account		Program Total
				Customer Credit	Consumer Education	
Collected Funds	218.337	135.045	61.517⁸	60.618	4.652	480.169⁹
Total Disbursements	(148.341)	(11.257)	(24.319)	(57.477)	(1.778)	(243.172)
Fourth Quarter '01 Disbursements	(12.447)	(1.628)	(11.477)	(1.281)	(0.365)	(27.198)
Intrafund Transfers	0.000	(7.014)¹⁰	0.000	6.859	0.155	0.000
Intrafund Reallocations	(55.000)^{11, 12}	33.800¹³	31.200	(10.000)¹⁴	0.000	0.000
Current Balance	14.996	150.574	68.398	0.000¹⁵	3.029	236.997
Encumbrances	0.000	(150.574)¹⁶	(39.799)¹⁷	0.000	(3.029)	(193.402)
Unencumbered Funds	14.996	0.000	28.599	0.000	0.000	43.595

The participating utilities continue making deposits into the Fund with payments current to December 31, 2001. The Program design has a built-in, two-month processing period for payments to eligible energy in several accounts.

As Table II reflects, in the fourth quarter of 2001 the State Controller made payments from the Customer Credit Subaccount to providers of renewable energy and from the Emerging Account to recipients of the Buydown Program rebates. Payments have been made from the New Account to 13 of the 35 projects that are now on-line and generating renewable energy, the Existing Account for electricity produced through October 2001, and from the Consumer Education Subaccount to grant-award recipients and contractors for renewable energy education activities. The Energy Commission encumbered funds from the Emerging Account for systems eligible for the Buydown Program

⁸ AB 29X ordered the transfer of \$15 million from the General Fund to the Emerging Account.

⁹ Available funds include \$13,447 in voluntary contributions.

¹⁰ Funds from the new account have been transferred to the Customer Credit and Consumer Education Subaccounts for accounting purposes. These funds will be repaid at a later date.

¹¹ To date, the Energy Commission has reallocated \$40 million from the Existing Account to the New Account for the second auction, and authorized the reallocation of an additional \$40 for the third auction.

¹² AB 29X ordered the reallocation of \$15 million from the Renewable Resource Trust Fund (Existing Account) to the Emerging Account.

¹³ The Energy Commission authorized the reallocation of \$6.2 million from the New Account to the Emerging Account, reducing a previous \$40 reallocation balance to \$33.8 million.

¹⁴ The Energy Commission authorized the reallocation of \$10 million from the Customer Credit Subaccount to the Emerging Account.

¹⁵ Corrections to the non-residential/non-small commercial portion of the monthly performance reports resulted in funds being returned to the \$15 million allocation for these customers.

¹⁶ The Energy Commission conditionally allocated \$162 million at its June 1998 auction, \$40 million at its December 2000 auction, and \$40 million at its August 2001 auction. Funds are encumbered for projects as they become available.

¹⁷ Reservation requests granted (but not yet paid) since the March 20, 1998 start-up of the Buydown Program.

rebates, the Consumer Education Subaccount for grant and contract project activities, and from the New Account for 78 projects with funding award agreements from the first, second, and third auctions. Funding for these projects will eventually total up to \$235.8 million; funds from the New Account will continue to be reserved as funding becomes available.

Existing Account

Short-run avoided costs (SRAC) have continued to drop and were as low as 2.1 cents per kilowatt-hour for the month of October. Since payments for October's generation were made in December 2001, due to the two-month processing period for payments, there was a significant increase in payments from the Existing Account for the fourth quarter, totaling \$12.4 million. With higher SRAC prices for the months of November and December 2001, and with the elimination of Tier 3 after December 2001, payments are expected to drop considerably once again next quarter. It is anticipated that approximately \$2.2 million will be paid out next quarter.

The rollover amount decreased by \$1.3 million this quarter and currently stands at nearly \$87.2 million. This amount is projected to increase to \$92.5 million by the end of the current program.¹⁸ The rollover is the amount of money that is available in the Existing Account but has not yet been paid out to facilities. Any funds that are not paid in one month are added to the following month's allocation and made available for that month's payment cycle.

The rollover funds will be used in a separate area of the Renewable Energy Program. To date, the Energy Commission has authorized the reallocation of up to \$80 million in Existing Account rollover funds to the New Account, in order to fund the projects of the winning bidders of the New Account's second and third auctions. In the first quarter of 2001, up to \$40 million was reallocated to the New Account for a second auction, and an additional \$40 million in the second quarter of 2001, for a third auction. The actual transfer of funds will not occur until the winning projects are on-line and eligible to begin receiving payments.

To satisfy the requirements set forth in Senate Bill 29X, an additional \$15 million in Existing Account rollover funds was authorized for reallocation to the Emerging Account to provide increased funding to the Emerging Renewables Buydown Program. The Energy Commission authorized the reallocation of \$6.2 million that had been reallocated to the New Account to fund the second auction; it was not needed for that purpose and thus was redirected to the Emerging Account. The Energy Commission will determine at a later date the actual amount of funding needed to fully fund winning bids from the second and third New Account auctions. This figure may not be known for several months because auction winners could possibly drop out, qualify for additional incentives, or have their funding awards under the auction either reduced or canceled.

New Account

¹⁸ These figures do not account for the rollover funds (up to \$95 million) that the Energy Commission has authorized for reallocation to the New Account for purposes of funding two additional auctions, and to the Emerging Account. However, it is now known that at least \$2.5 million proposed for reallocation to cover the New Account's second auction will not be necessary, and that amount will therefore remain in the Existing Account.

Of the 78 projects that won funding awards from one of the three New Account auctions, a total of 35 have begun producing energy. These projects are currently contributing a total of 202 MW of new renewable energy capacity to California's energy supply.

To date, nine landfill gas facilities totaling 27.5 MW of capacity, two geothermal projects totaling 60 MW, one 16.5 MW wind project, and one 7.5 MW biomass project have received \$11.26 million in payments from the New Account for approximately 921 million kWh of new renewable generation. The remaining 22 facilities, totaling 90.7 MW of capacity, are technically on-line but have not yet submitted payment invoices to the Energy Commission.

Some of the projects that won funding awards in the New Account's first auction have experienced delays and are not yet operational; these projects are currently reporting revised on-line dates of after January 1, 2002. At the time of the June 1998 auction, the Public Utilities Code section 383.5(c)(2)(B) required existing projects to be on-line by January 1, 2002 in order to receive a full five years of payments.

This deadline, however, was revised in September 2000 with the passage of AB 995, which amended section 383.5(c)(2)(B) so that projects participating in the New Account could come on-line later than January 1, 2002 and still receive a full five years of payments. This provision requires the Energy Commission to make a formal finding that the delay resulted from circumstances beyond a project developer's control.

On November 6, 2001, two first-auction winners, Calpine Siskiyou Geothermal Partners, L.P. and California Energy General Corporation, filed a joint petition to the Energy Commission requesting an extension of their funding awards pursuant to the amended Public Utilities Code section 383.5(c)(2)(B).

The Electricity and Natural Gas Committee held a public hearing on December 5, 2001 regarding this petition, and will present their findings and recommendations at a Business Meeting in January 2002. The Committee and Energy Commission staff are currently evaluating New Account guidelines and State law to create a policy or process to follow for other first auction projects that missed the original deadline.

Emerging Account

The Emerging Renewables Buydown (Rebate) Program has received 4,708 reservation requests since it began in March 1998, including 915 new requests during the fourth quarter of 2001¹⁹. In comparison, one year ago, during the fourth quarter of 2000, 135 reservation requests were received. Payments totaling \$11.5 million were made to eligible systems participating in the Buydown Program during the fourth quarter of 2001.

The escalation in the number of reservation requests received by the Buydown Program continues to be primarily a result of California's energy crisis, as residents and businesses are becoming

¹⁹ Included in the tally of reservation requests are 476 reservations that have been cancelled or disapproved.

increasingly interested in securing a reliable and cost-predictable electricity source. The passage of Assembly Bill 29X earlier this year, which authorized an increase in the rebate amount to the lessor of \$4.50 per watt or 50 percent of system costs, served as additional encouragement to participating in the Buydown Program.

Another stimulus for consumers considering a solar or wind system is a new state tax credit. Signed by Governor Davis in September 2001, Senate Bill 17X2²⁰ was designed to encourage the installation of solar and wind systems (up to 200 kW) by providing a 15 percent tax credit for tax years 2001 and 2002, and a 7.5 percent credit for tax years 2003 and 2004.

Funding for rebates for medium and large systems was fully encumbered during the fourth quarter of 2001. Reservation activity is expected to continue at a high rate into the upcoming quarters – consumer interest in energy alternatives typically turns to solar energy in the spring and summer months.

In December 2001, the Energy Commission authorized \$8 million to be used for rebates to customers of California's municipal utilities. Currently, \$39.8 million is encumbered for projects with reservation requests, and the State Controller has paid approximately \$24.3 million to completed projects. The total amount of encumbered funds does not include about 450 reservation requests received during the fourth quarter of 2001, which are still in various stages of the review process and have not yet received funding approval.

In November, Underwriters Laboratories (UL) announced that it was withdrawing its UL certification for several inverters for grid-interactive use, manufactured by Trace/Xantrex. Inverters are electrical devices used by solar photovoltaic and small wind systems to transform DC current into AC current used by most homes and businesses. Because the Buydown Program requires that if inverters are used, they must be listed, a notice was sent to program participants about the UL de-certification. Program participants were advised that rebate reservation requests that had not received a final building permit on or before December 11, 2001 would be held until the inverters were UL-approved.

Other Emerging Account activities during the fourth quarter of 2001 include the following ongoing projects, carried out by technical support contractors:

- Additional troubleshooting of under-performing systems
- Additional training sessions for installers and building officials
- Recommendations on certifying large inverters
- Recommendations for performance meters on systems

Customer Credit Subaccount

Changes in the direct access market continued to impact the implementation of the Customer Credit Subaccount in the fourth quarter of 2001. At the close of the third quarter, the California Public

²⁰ Revenue and Taxation code Sections 17053.84 and 23684.

Utilities Commission (CPUC) implemented Senate Bill 1X, which directed the CPUC to suspend the right of retail customers to purchase energy through the direct access market. This suspension, which became effective on September 20, 2001, allows no new customers to sign up for a direct access contract; customers that were already making direct access purchases, however, may continue to do so. The Customer Credit Subaccount requires that purchases of renewable electricity must be made through a direct access contract. Consequently, the expenditures from the Subaccount are expected to remain relatively steady, but to decline with attrition.

It is notable, however, that the CPUC is considering making the suspension retroactive to July 1, 2001. If the suspension becomes retroactive, some funds could be returned to the Customer Credit Subaccount, provided that any of the customers who signed up for a direct access contract between July and September received the customer credit.

A reflection of market activity is depicted through the number of providers registered and actively serving customers. This number has decreased each quarter in 2001, from nine providers at the close of the first quarter, to five providers at the end of this quarter. The load served by the five current providers has remained relatively constant, though much lower than at the beginning of 2001.

Since providers are not required to change their registration status when they exit the market, the total number of registered renewable providers continues to hold steady from last quarter at 29, with a total of 48 registered products. The number of registered wholesalers remains at four.

Providers have continued to report corrections to the non-residential/non-small commercial (large customer) portion of the monthly performance reports this quarter. This resulted in funds being returned to the \$15 million allocation for large customers. Returned funds have been, and will continue to be, redistributed to those providers who received partial payment for claims made on behalf of large customers in the month that the \$15 million allocation was exhausted.

The customer credit level remained at 1.0 cent per kWh for the six-month period from July through December 2001.

To date, the State Controller has paid \$57.5 million to registered renewable providers. Payments by quarter significantly dropped from the first quarter to the second quarter; however, third quarter payments were slightly higher than payments for the second quarter. Payments in the fourth quarter have dropped even further to \$1.3 million. Monthly disbursements to providers have continued to decrease, but at a slower rate than in previous months.

Consumer Education Subaccount

During the fourth quarter of 2001, most of the grant projects from the 2000 grant solicitation for consumer education and outreach activities were completed. The remaining activities are expected to be completed during the first quarter of 2002. Payments totaling over \$32,000 were made for these grant activities for which invoices were received during this period.

Highlights of project activities from the first grant solicitation completed during this quarter include:

- A ribbon-cutting ceremony for the PV installation at the Davis Food Co-Op was conducted in October 2001 and in Santa Monica in December 2001. The Grass Valley Co-Op also completed their installation and an alternative energy fair was held after the ceremony in Davis. Two other co-ops (Arcata and Ocean Beach) expect to complete their PV installations during the first quarter of 2002. An informational sign is displayed at each site and brochures are available which explain how consumers can install their own systems.
- A draft of the *Small Wind Electric Systems: A California Consumer's Guide* was reviewed by wind industry experts and finalized in December. The *Guide* is expected to be available in early 2002.
- The San Diego Regional Energy Office conducted a successful Solar Home Tour with over 500 participants visiting 13 sites. The event was covered by two local newspapers and three television networks.
- Weekly articles and case studies continued to be placed in the Chico *News & Review*.

The five projects selected under the second grant solicitation, conducted in 2001, are underway. Payments totaling over \$63,000 were made for these grant project activities for which invoices were received during this period. Highlights of recent activities under these grant projects include the following:

- “This Renewable House,” a half-hour television program similar to the PBS show “This Old House,” and three 15- and 30-second Public Service Announcements featuring Lee Iacocca, were filmed.
- A new website was developed, which includes a contractor database and tips on how to choose a contractor. This website can be found at [www.calenergy.org].
- Energy curriculum lesson plans were developed and tested.
- The “Stimulating the Implementation of Renewable Energy Technologies” (SPIRE) project has begun. Information about the project was distributed at two local government conferences, the Local Government Commission (LGC) energy newsletter *Currents* and *LGC Reports* (an LGC monthly membership newsletter), and the LGC and Energy Commission Web Sites. A SPIRE brochure and fact sheet were developed and distributed as well. Several newsletters, magazines and newspapers included a feature article on the SPIRE program.
- Another website was developed and registered under the domain name [www.solarschoolhouse.org]. This website includes the new program title and logo, and energy curriculum for K-12 class levels as part of the Solar Series Education and Energy for Schools.

ICF Consulting, the contractor developing and implementing the Renewable Energy Public Awareness Campaign, and their team of subcontractors, conducted a controlled quantitative phone survey of 300 California adults in target markets during this quarter. Results from this survey were used to determine the best messaging strategies and appropriate outreach needed to educate Californians about renewable energy technologies. The results were proposed as a lead-in to eight focus groups held in November in four targeted cities – San Diego, Los Angeles, Fresno and San Jose. The focus groups were conducted with both residential and commercial sector participants.

ICF presented the results and findings from the focus groups as well as their recommendations to the Energy Commission staff.

In December 2001, ICF Consulting proposed a set of concepts to help define the Renewable Energy Program and its value to consumers through branding with a tagline and a series of icons. The design concepts were submitted to the Energy Commission staff for review. Decisions about the concepts will be made early in the next quarter. Payments to ICF Consulting for which invoices have been received during this quarter total approximately \$181,000.

Energy Commission staff represented the Renewable Energy Program at UPEX '01, a Photovoltaic Experience conference held in Sacramento from September 30 to October 4. The staff exhibited and participated in educational workshops at this event, hosted by the Solar Electric Power Association and co-sponsored by the Energy Commission.

The contract for the Clean Power EstimatorTM, an interactive tool housed on the Energy Commission's Web Site, will expire at the end of this quarter. After researching possible alternatives to the EstimatorTM, the staff decided to renew the contract, and recommended slightly revising the content and adding some graphical interface to the web pages.

During this quarter JHME, a marketing firm and technical support subcontractor, continued to develop the marketing campaign promoting the Emerging Renewables Buydown Program through the building industry. JHME further developed public relations media pieces and placed advertisements in three home building and remodeling magazines. During this quarter the Buydown Program's rebate funds became fully encumbered for medium-sized systems (11 to 100 MW). Because rebate funds for medium and large systems (greater than 100 MW) are no longer available to consumers, in October the staff decided to terminate this promotional campaign.

Summary

In summary, the Energy Commission has made excellent progress in implementing the Renewable Energy Program. We expect disbursements of the Renewable Resource Trust Fund to increase in the first quarter of 2002.